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(71)Applicant : OOHIRA DENSHI KK

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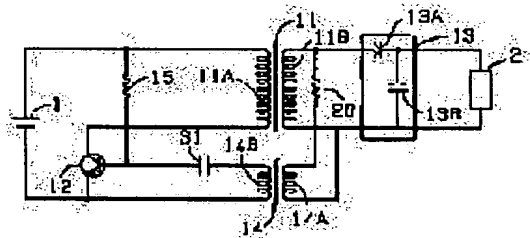
(72)Inventor : SATO MORIO

#### (54) SELF-EXCITED SWITCHING POWER SUPPLY SYSTEM

**(57)Abstract:**

**PURPOSE:** To prevent overcurrent from flowing not only when a secondary winding of a main transformer is shorted but also when the output is shorted by sending a positive feedback signal to a control electrode of a switching device from the secondary winding of the main transformer through a saturable reactor.

**CONSTITUTION:** In a self excited switching power system, both terminals of a serial circuit of a primary winding 11A of a main transformer 11 and a switching transistor 12 are connected to a DC power supply 1 and DC voltage is supplied to a load 2 from a secondary winding 11B of the main transformer 11 through a rectifying and smoothing circuit 13. In this system, pulse signals are transmitted by means of a saturable transformer 14. In order to provide this system with such a transmission function, a primary winding 14A of the saturable transformer is connected to the secondary winding 11B of the main transformer 11 and a secondary winding 14B of the saturable transformer is connected to a control electrode of the switching transistor 12. The saturable transformer 14 is provided with a function to control a maximum value of a pulse width and thereby the system obtains an overcurrent protective function for the time when a short occurs from the secondary winding 11B of the main transformer 11 on to the output side.



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